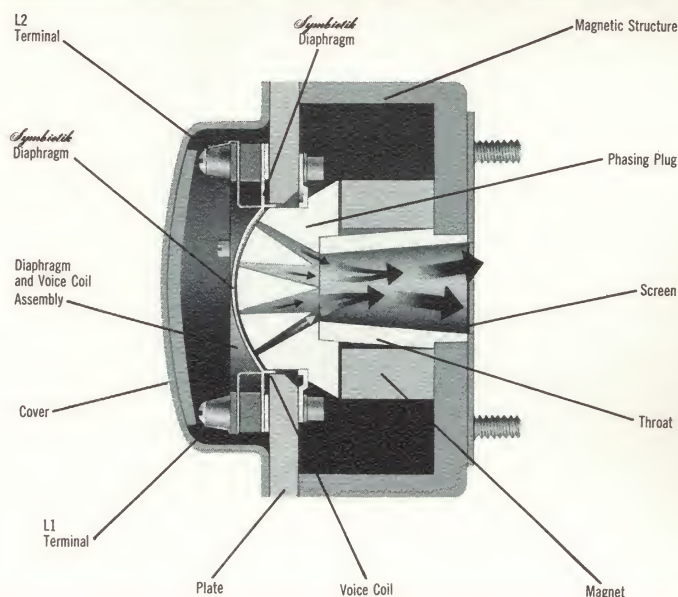


# 807-8A & 808-8A Driver Loudspeakers

**807-8A  
808-8A**



## Features:

*Symbiotik*™ Diaphragm  
500-20,000 Hz Response

Smooth, Peak-Free Response

Extremely High Efficiency

Low Distortion

Faithful Reproduction

Edge-Wound Voice Coil

Greater Power Capacity

Compact — Easily Installed

Field Replaceable Diaphragm  
and Voice Coil Assembly

PROFESSIONAL 'PLAYBACK' SOUND SYSTEMS  
BROADCAST & RECORDING STUDIOS · BALL ROOMS  
AUDITORIUMS · SCHOOL & CHURCH MUSIC ROOMS  
MUSIC HALLS · THEATRES · NIGHT CLUBS  
DANCE STUDIOS · WIDE RANGE MUSIC SYSTEMS

The ALTEC 807-8A and 808-8A High-Frequency Driver Loudspeakers are designed for all professional PLAYBACK applications requiring outstanding reproduction of sound over an extremely wide frequency range at substantial power levels. Such conditions are readily fulfilled with unusually high efficiency and exceptionally uniform response from 500 or 800 Hz (dependent on the dividing network and horn employed) to over 20,000 Hz.

When used in conjunction with the ALTEC 511A, 511B (500 Hz) or 811B (800 Hz) sectoral horn, the N501-8A (500 Hz) or N801-8A (800 Hz) network, and the 414, 515 or 416-8A low-frequency loudspeaker, the 807-8A and 808-8A furnish the realistic reproduction demanded by all major broadcasting stations, recording studios, theatres, auditoriums and music halls.

Both the 807-8A and 808-8A transducers utilize a voice coil of notably large diameter (1-3/4"), edge wound with aluminum ribbon and coupled to a large *Symbiotik* diaphragm. A mechanical phasing plug (i.e., pole piece), having two exponential acoustic slots, is utilized to provide the proper phase relationship between the sound emanating from the center and outer edges of the diaphragm and voice coil assembly, thus ensuring maximum high-frequency reproduction while maintaining a smooth overall response. Either driver is capable of uniform, peak-free reproduction to a point far above the range of human hearing. The entire diaphragm and voice coil assembly of the 807-8A and 808-8A is field replaceable; no special tools are required.

For full range systems utilizing low-frequency loudspeakers of relatively low efficiency, located in non-reverberant areas having moderate ambient noise levels, the 807-8A driver proves a perfect match. (Such conditions would be analogous to the average listening room or smaller broadcast and recording studio.)

In instances wherein relatively high ambient noise is present, and where maximum efficiency of both vocal speech and music must be reproduced with great clarity, the heavier magnet weight and greater flux density of the 808-8A are preferred. The 808-8A represents one of the finest high-frequency transducers manufactured by ALTEC; the 2 dB greater efficiency (over the 807-8A), coupled with the same precision accuracy of minute production tolerances, make the 808-8A the industry standard for laboratory and professional usage alike.

These factors, together with the all-important ALTEC criteria of engineering experience, combine to produce the 807-8A and 808-8A high-frequency loudspeakers of virtually matchless quality and limitless application.



A quality company of LTV Ling Altec, Inc.

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New York

# ALTEC 807-8A 808-8A

## SPECIFICATIONS

DESCRIPTION	MODEL 807-8A	MODEL 808-8A
Power Rating:	Up to 30 watts rms (based on continuous operation with white noise 500 Hz to 20,000 Hz and with ALTEC model N501-8A or N801-8A dividing network)	Up to 30 watts rms (based on continuous operation with white noise 500 Hz to 20,000 Hz and with ALTEC model N501-8A or N801-8A dividing network)
Frequency Response:	500 to 20,000 Hz	500 to 20,000 Hz
Pressure Sensitivity:	109.5 dB w/1 watt input measured 4' from mouth of 30" horn over warble frequency range 500-2500 Hz (Ref: 0.0002 dynes/cm <sup>2</sup> for 1 watt input)	111.7 dB w/1 watt input measured 4' from mouth of 30" horn over warble frequency range 500-2500 Hz (Ref: 0.0002 dynes/cm <sup>2</sup> for 1 watt input)
	124.2 dB at 30 watts	126.4 dB at 30 watts
Impedance:	8 ohms	8 ohms
Voice Coil Diameter:	1.75"	1.75"
Application:	HF Driver loudspeaker for wide-range, 2-way studio 'Playback' systems	HF Driver loudspeaker for wide-range, 2-way studio 'Playback' systems
Protection:	N501-8A dividing network and 511A or 511B horn for 500-Hz crossover; N801-8A dividing network and 811B horn for 800-Hz crossover.	N501-8A dividing network and 511A or 511B horn for 500-Hz crossover; N801-8A dividing network and 811B horn for 800-Hz crossover.
Magnet Weight	13 oz	1.2 lbs
Flux Density:	13,000 Gauss	15,250 Gauss
Dimensions:	4-1/2" Diameter 3-1/4" Deep	4-1/2" Diameter 3-11/16" Deep
Weight:	5 lbs, 11 oz	7 lbs
Finish:	Black matte	Black matte
Accessories:	511A, 511B, 811B sectoral horns*; N501-8A, N801-8A dividing networks; 70.7V transformers.	511A, 511B, 811B sectoral horns*; N501-8A, N801-8A dividing networks; 70.7V transformers.

\*For multicellular horns, use ALTEC driver loudspeaker models 730, 288, 290 or 291.

## ARCHITECTS AND ENGINEERS SPECIFICATIONS

### (FOR ALTEC 807-8A)

The high-frequency driver loudspeaker shall utilize a *Symbiotik* diaphragm coupled to a voice coil that shall be edge-wound of aluminum ribbon and that shall be 1-3/4" in diameter. The voice coil gap shall have a flux density of at least 13,000 Gauss, produced by a magnet having a weight of 13 ounces. A machined phasing plug, which also serves as the pole piece, shall have two exponential acoustic slots and shall be utilized to provide the proper phase relationship between the sound emanating from the center and edges of the diaphragm and voice coil assembly, thus ensuring maximum high-frequency reproduction while maintaining a smooth overall response. The entire diaphragm and voice coil assembly shall be field replaceable without requiring special tools or skills; this shall be interpreted to mean that the loudspeaker shall incorporate self-centering dowels to ensure proper spacing and alignment of the diaphragm and voice coil assembly.

The HF driver loudspeaker shall produce a sound pressure level of at least 109.5 dB with 1 watt input and 124.2 dB with 30 watts input at a distance of 4 feet from the mouth of a 30" trumpet when a warble band of 500 to 2500 Hz is used. Single frequency measurements shall not be acceptable under this specification. The frequency response of the HF driver shall be uniform over the range of (specify one):

500 to 20,000 Hz with the ALTEC 511A or 511B sectoral horn and N501-8A dividing network.

800 to 20,000 Hz with the ALTEC 811B sectoral horn and N801-8A dividing network.

Any high-frequency driver loudspeaker not meeting all of the foregoing requirements shall not be acceptable under this specification.

The high-frequency driver loudspeaker shall be ALTEC Lansing model 807-8A.

### (FOR ALTEC 808-8A)

The high-frequency driver loudspeaker shall utilize a *Symbiotik* diaphragm coupled to a voice coil that shall be edge-wound of aluminum ribbon and that shall be 1-3/4" in diameter. The voice coil gap shall have a flux density of at least 15,250 Gauss, produced by a magnet having a weight of 1.2 pounds. A machined phasing plug, which also serves as the pole piece, shall have two exponential acoustic slots and shall be utilized to provide the proper phase relationship between the sound emanating from the center and edges of the diaphragm and voice coil assembly, thus ensuring maximum high-frequency reproduction while maintaining a smooth overall response. The entire diaphragm and voice coil assembly shall be field replaceable without requiring special tools or skills; this shall be interpreted to mean that the loudspeaker shall incorporate self-centering dowels to ensure proper spacing and alignment of the diaphragm and voice coil assembly.

The HF driver loudspeaker shall produce a sound pressure level of at least 111.7 dB with 1 watt input and 126.4 dB with 30 watts input at a distance of 4 feet from the mouth of a 30" trumpet when a warble band of 500 to 2500 Hz is used. Single frequency measurements shall not be acceptable under this specification. The frequency response of the HF driver shall be uniform over the range of (specify one):

500 to 20,000 Hz with the ALTEC 511A or 511B sectoral horn and N501-8A dividing network.

800 to 20,000 Hz with the ALTEC 811B sectoral horn and N801-8A dividing network.

Any high-frequency driver loudspeaker not meeting all of the foregoing requirements shall not be acceptable under this specification.

The high-frequency driver loudspeaker shall be ALTEC Lansing model 808-8A.

**NOTICE**  
We recommend that you obtain your Altec products from factory trained authorized Altec Sound Contractors and Distributors. This will assure you of proper installation, a continuing source of knowledgeable advice, service, and quick warranty protection.